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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Final Office Action

### *Claim Objections*

1.      Claim 5 is objected to because of the following informalities:  in line 3, "the same

identifier in a last detected jump" should be "the same identifier *is* a last detected jump".

Appropriate correction is required.


### *Claim Rejections - 35 USC § 102*

2.      The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

3.      Claims 1-3, 5, 7-9, 11, 12, 14, and 16 are rejected under 35 U.S.C. 102(b) as

being anticipated by Shah et al., U.S. Patent 6,148,437.

        Referring to claim 1:

        a.      In column 2, lines 55-57, Shah et al. disclose that the present invention is

        a jump-evaluating trace designator that includes an original instruction processor

        (A method for transmitting digital messages through output terminals of a

        monitoring circuit integrated to a microprocessor on execution of an instruction

        sequence by the microprocessor, each digital message being representative of

        characteristic data stored by the monitoring circuit on detection of a specific

        event from among several specific events in the execution of the instruction

        sequence, one of said characteristic data corresponding to an identifier of said

        specific event).

b.     In column 6, lines 62-65, Shah et al, disclose that the backpatch manager
examines a trace after it has been translated to determine if any other previously
translated trace has a jump instruction that jumps to the newly translated trace
(comparing characteristic stored data of a specific event with characteristic
stored data of a last previously detected specific event corresponding to a same
identifier).

c.     In column 4, line 67 continued in column 5, lines 1-3, Shah et al. disclose
that the start-end designator designates a jump instruction to be the end of the
trace if the number of times that control has passed through it reaches a
predetermined end-trace threshold (if the compared characteristic data are
identical, incrementing a repetition counter associated with said specific event).

d.     In column 12, lines 43-48, Shah et al. disclose that if there is no match
between the unique identifier of the current original instruction and any entry in a
column, driver in a known manner creates a new original instruction record by
creating a new row of entries in instruction data structure (and if the compared
data are different, transmitting a digital message representative of the data
characteristic of the specific event).  In column 12, lines 57-62, Shah et al.
disclose after assigning a unique identifier it determines whether the instruction is
a target instruction of a start-trace eligible jump instruction so that a trace is
started if such target instruction's start-trace counter is greater than the start-
trace threshold of the start-trace eligible jump instruction (and, further, if content

of the repetition counter associated with said specific event is different from zero,
transmitting a digital message indicating a repetition of the specific event).

Referring to claims 2 and 11, in column 4, line 67 continued in column 5, lines 1-
3, Shah et al. disclose that the start-end designator designates a jump instruction to be
the end of the trace if the number of times that control has passed through it reaches a
predetermined end-trace threshold (the digital message indicating a repetition of the
specific event comprises the content of the repetition counter associated with said
specific event).

Referring to claims 3 and 12, in column 5, lines 49-51, Shah et al. discloses that
if such a counter reaches the end-trace threshold for the associated type of jump
instruction, the trace is ended (comprising resetting the repetition counter associated
with said specific event after transmission of a digital message indicating a repetition of
the specific event).

Referring to claims 5 and 14, in column 2, lines 55-57,Shah et al. disclose a.
jump-evaluating trace (the specific event is a jump in the instruction sequence executed
by the microprocessor and the last previously detected specific event corresponding to
the same identifier in a last detected jump).

Referring to claims 7 and 16, in column 2, lines 55-57,Shah et al. disclose a
jump-evaluating trace.  A jump instruction is inherently a read or write operation in a
computer system.

Referring to claim 8, in column 5, lines 49-51, Shah et al. discloses that if such a
counter reaches the end-trace threshold for the associated type of jump instruction, the

trace is ended (transmitting a digital message indicating a repetition of the specific event

if the content of the repetition counter associated with said specific event is greater than

a determined threshold; and setting the repetition counter associated with said specific

event to zero).

Referring to claim 9:

a.      In column 2, lines 55-57, Shah et al. disclose that the present invention is

a jump-evaluating trace designator that includes an original instruction processor

(A device for transmitting digital messages between a monitoring circuit (--I-g)

integrated to with a microprocessor (-1-:2--) and an analysis tool (--2-4-), on

execution of an instruction sequence by the microprocessor, comprising: a--

means for detecting a specific event from among several specific events in the

execution of the instruction sequence; a-means for storing data characteristic of

the detected specific event, one of said characteristic data corresponding to an

identifier of the specific event; and a--means for transmitting a digital message

representative of the memorized stored characteristic data).

b.      In column 6, lines 62-65, Shah et al, disclose that the backpatch manager

examines a trace after it has been translated to determine if any other previously

translated trace has a jump instruction that jumps to the newly translated trace

(means for comparing the characteristic data of the detected specific event with

characteristic data of a previously detected specific event corresponding to the

same identifier).

c.      In column 4, line 67 continued in column 5, lines 1-3, Shah et al. disclose

that the start-end designator designates a jump instruction to be the end of the

trace if the number of times that control has passed through it reaches a

predetermined end-trace threshold (means for incrementing a repetition counter

associated with said detected specific event and indicating a number of

repetitions of the detected specific event when the comparison means provides a

signal indicating that the compared characteristic data are identical).

d.      In column 12, lines 43-48, Shah et al. disclose that if there is no match

between the unique identifier of the current original instruction and any entry in a

column, driver in a known manner creates a new original instruction record by

creating a new row of entries in instruction data structure (wherein the

transmission means is capable of transmitting a message representative of the

data characteristic of the detected specific event when the comparison means

provides a signal indicating that the compared characteristic data are different

and, transmitting a digital message indicating a repetition of the detected specific

event when the incrementation means provides a signal indicating that content of

the repetition counter associated with said detected specific event is different

from zero).

### *Allowable Subject Matter*

4.      Claims 4, 6, 10, 13, and 15 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

### *Response to Arguments*

5.      Applicant's arguments filed February 29, 2008 have been fully considered but they are not persuasive.

6.      On page 7, under <u>REMARKS</u>, the Applicant argues, "Therefore, the start-trace counter for the current target instruction is incremented upon each occurrence of the current target instruction. In contrast, claim 1 recites 'if the compared characteristic data are identical, incrementing a repetition counter associated with said specific event.'" The Examiner respectfully disagrees. The Applicant attempts to contrast the claim language with the prior art, however, given the broadest reasonable interpretation, "characteristic data" is nothing more than an "identifier" as defined by the language of claim 1. In order for the counter of Shah et al. to be incremented the when a jump instruction is identified (see column 16, lines 28-36 and Figure 8A).

7.      On pages 8-9, under <u>REMARKS</u>, the Applicant argues, "Therefore, Shah does not teach or suggest 'comparing characteristic stored data of a specific event with characteristic stored data of a last previously detected specific event corresponding to a same identifier; if the compared characteristic data are identical, incrementing a repetition counter associated with said specific even,' as recited in claim 1." The Examiner respectfully disagrees. As stated above characteristic data is the same as an identifier. Once an instruction has been identified, the counter is incremented (see Shah et al., column 18, lines 37-42). Further, in column 18, lines 62-67, Shah et al. disclose that the value of current start-trace counter 906C may be greater than the value of the current start threshold because a previous incrementation may have been

made with respect to a type of jump instruction having a start threshold greater than the start threshold of the current jump instruction.

8.      On pages 8-9, under <u>REMARKS</u>, the Applicant argues, "In contrast, claim 1 recites 'if the compared data are different, transmitting a digital message representative of the data characteristic of the specific event and, further, if content of the repetition counter associated with said specific event is different from zero, transmitting a digital message indicating a number of repetitions of the specific event determined by a value of the repetition counter.'" The Examiner respectfully disagrees. In column 12, lines 43-48, Shah et al. disclose that if there is no match between the unique identifier of the current original instruction and any entry in a column, driver in a known manner creates a new original instruction record by creating a new row of entries in instruction data structure Further, in column 12, lines 57-62, Shah et al. disclose after assigning a unique identifier it determines whether the instruction is a target instruction of a start-trace eligible jump instruction so that a trace is started if such target instruction's start-trace counter is greater than the start-trace threshold of the start-trace eligible jump instruction.

### *Conclusion*

9.      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael C. Maskulinski whose telephone number is

(571)272-3649. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

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/Michael C Maskulinski/

Primary Examiner, Art Unit 2113